

EQUINOX

SST-16I Multiport Board Hardware Reference Guide

SuperSerial™ Technology

PN 560125/C

January 1998

Overview

Equinox SuperSerial Technology (SST) Boards are intelligent, high-speed (up to 230.4 kbps on each port) *multiport boards* providing high performance serial I/O solutions for PCI and ISA, bus systems. All port interfaces are standard RS-232 with full modem control and voltage surge protection on every pin.

SST Boards appear to the system host processor as memory. That is, they are memory mapped devices. Each board is automatically mapped into system memory at the time of device driver installation. The device driver soft-configures all boards each time the system is initialized (booted). See PN 560084 (UNIX SVR3.2, SCO, and XENIX) or PN 560085 (UNIX SVR4 STREAMS) or PN 560093 (Remote Access) software reference manuals for detailed device driver information.

The SST-16I Board (see Figure 1 below) occupies a single ISA slot in the host computer and provides the intelligent functions to "off-load" the CPU serial communications processing tasks.

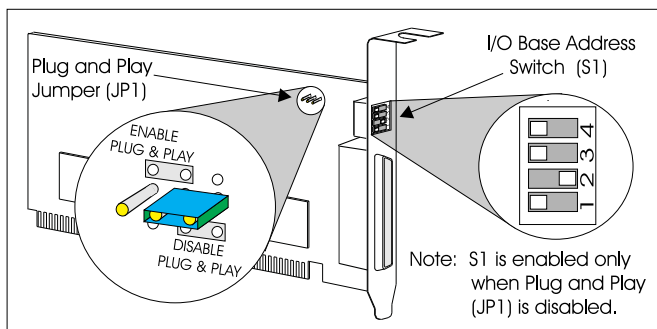


Figure 1. SST-16I Multiport I/O Board
(Shown with Plug and Play disabled)

Installation

Use the following procedure to install your SST Board. Alternatively, you may follow the installation instructions presented in your host system documentation.

1. Set the host computer system power switch to OFF and disconnect the power cord.
2. Locate a free expansion slot.
3. Insert and secure the board firmly into the expansion slot.
4. Connect the Host SSP-16 Cable between the SST-16I board and the Connector Panel (CP).

Note: Always turn off power before connecting or removing the CP.

5. Replace the power cord and turn the host computer system ON.

Plug and Play

ISA SST Boards must be assigned a unique I/O base address. This can be accomplished by the use of ISA Plug and Play (PnP) or the I/O Base Address Switch (S1).

PnP for ISA boards is not currently supported by all Operating Systems (OS). (At the time of this printing, Windows 95 is the only OS supporting PnP.) Consult your OS documentation to determine if it supports PnP.

If PnP is not supported by your OS, or if you are unsure, place the PnP Jumper (JP1) in the position closest to switch S1. This will disable PnP and enable the 4-position I/O Base Address switch as shown below.

If multiple ISA boards are installed in the same system, a different address must be assigned to each board. (This is automatically accomplished if PnP is utilized.) This procedure should be performed before the board is physically installed.

S1 - Front View

ISA Multiport Board

1234

OFF
ON

1	2	3	4	Base Address
OFF	OFF	OFF	OFF	200
ON	OFF	OFF	OFF	220
OFF	ON	OFF	OFF	240
ON	ON	OFF	OFF	260
OFF	OFF	ON	OFF	280
ON	OFF	ON	OFF	2A0
OFF	ON	ON	OFF	2C0
ON	ON	ON	OFF	2E0
OFF	OFF	OFF	ON	300
ON	OFF	OFF	ON	320
OFF	ON	OFF	ON	340
ON	ON	OFF	ON	360
OFF	OFF	ON	ON	380
ON	OFF	ON	ON	3A0
OFF	ON	ON	ON	3C0
ON	ON	ON	ON	3E0

Switch S1 is shown set for I/O base address 240H

Connector Panels

SST-16I Connector Panels (CP) provide sixteen RS-232 interfaces. There are two types of CPs available from Equinox as shown in Figure 2 below. The DB-25 CP has sixteen female DTE connectors (see Figure 3 below). The RJ-45 CP has sixteen 10-wire female RJ-45 connectors (see Figure 4 below).

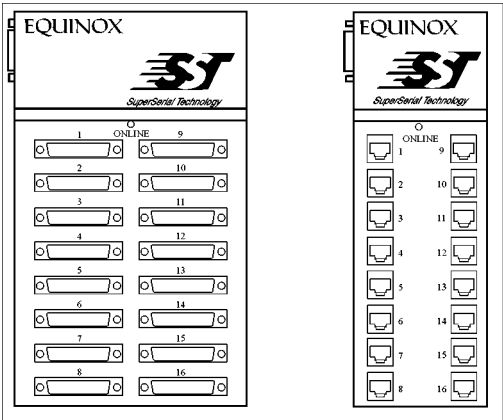


Figure 2. DB-25 and RJ-45 Connector Panels

			DB-25	
	Signal Name		Pin Functions	
	1 GND	Chassis Ground	Ground	
	2 TD	Transmit Data	Output	→
	3 RD	Receive Data	Input	←
	4 RTS	Request To Send	Output	→
	5 CTS	Clear To Send	Input	←
	6 DSR	Data Set Ready	Input	←
	7 GND	Signal Ground	Ground	
	8 DCD	Data Carrier Detect	Input	←
	20 DTR	Data Terminal Ready	Output	→
	22 RI	Ring Indicator	Input	←

Figure 3. DB-25 Connector Panel Pin-Outs

			RJ-45	
	Signal Name		Pin Functions	
	1 RI	Ring Indicator	Input	←
	2 RTS	Request To Send	Output	→
	3 DTR	Data Terminal Ready	Output	→
	4 RD	Receive Data	Input	←
	5 GND	Signal Ground	Ground	
	6 TD	Transmit Data	Output	→
	7 GND	Signal Ground	Ground	
	8 DCD	Data Carrier Detect	Input	←
	9 CTS	Clear To Send	Input	←
	10 DSR	Data Set Ready	Input	←

Figure 4. RJ-45 Connector Panel Pin-Outs

SST-16I Port to Device Cabling

The following six figures show how to pin-out your own cables to go between SST-16I Connector Panel (CP) ports and your terminals, printers, modems, etc.

DB-25 Connector Panel to Device Cabling

Figures 5 through 7 show the pin-outs required to make a cable to go between SST-16I DB-25 CP ports and your terminals, printers, modems, etc.

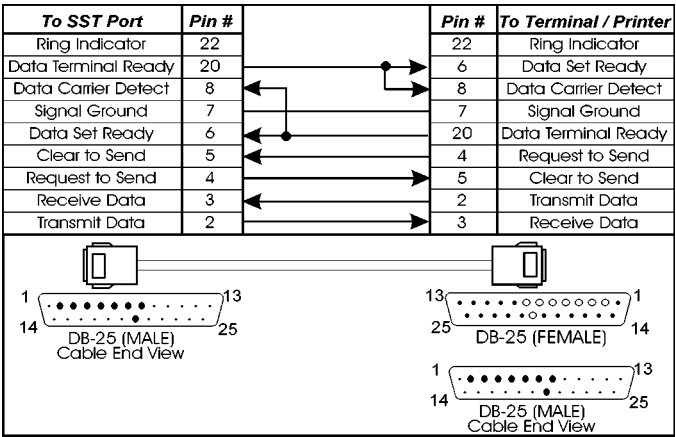


Figure 5. Cable Pin-Outs for CP DB-25 to terminal/printer DB-25

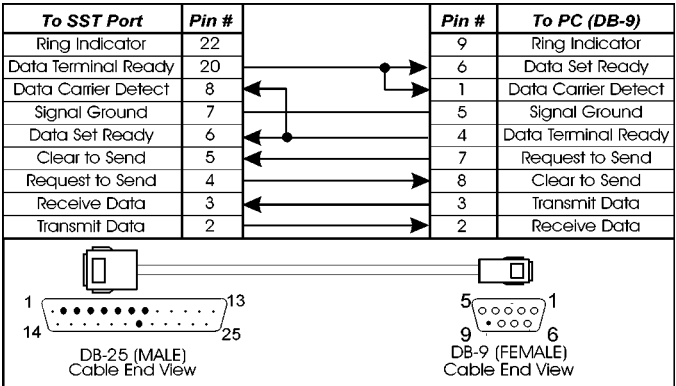


Figure 6. Cable Pin-Outs CP DB-25 to PC DB-9

DB-25 Connector Panel to Device Cabling continued

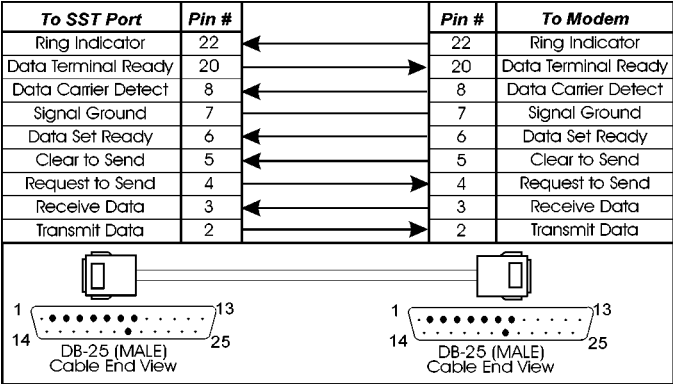


Figure 7. Cable Pin-Outs for CP DB-25 to modem DB-25

RJ-45 Connector Panel to Device Cabling

Figures 8 through 10 show the pin-outs required to make a cable to go between SST-16I RJ-45 CP ports and your terminals, printers, modems, etc.

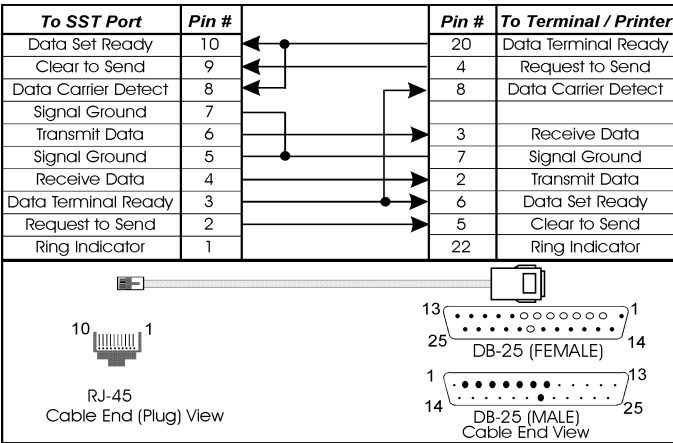


Figure 8. Cable Pin-Outs for CP RJ-45 to terminal/printer DB-25

RJ-45 Connector Panel to Device Cabling continued

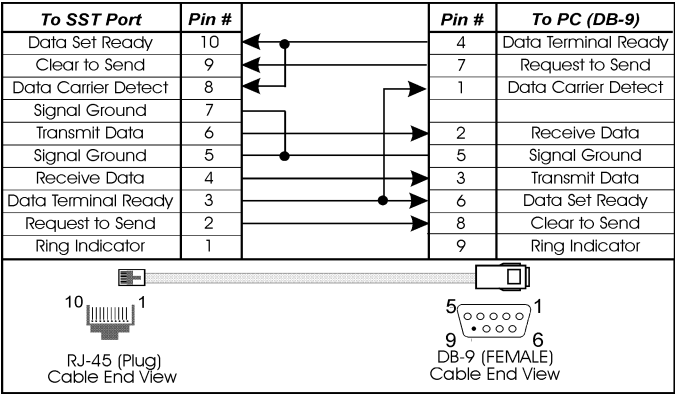


Figure 9. Cable Pin-Outs for CP RJ-45 to PC (DB-9)

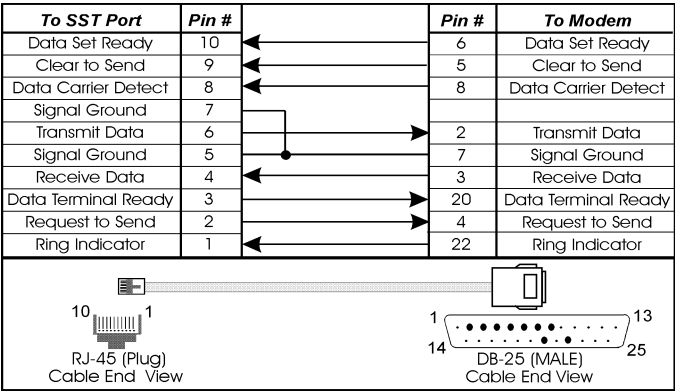


Figure 10. Cable Pin-Outs for CP RJ-45 to modem DB-25

RJ-45 Modular Adaptors

Modular adaptors are available from Equinox to convert RJ-45 modular jacks to DB-25 or DB-9 connectors. These modular adaptors in conjunction with 10-wire modular cables perform the same functions as shown in Figures 8 through 10. Table 1 below describes the modular adaptors available from Equinox:

<u>P/N</u>	<u>Connector</u>	<u>Connects To</u>
210070	DB-25 DCE male	terminal or printer (female)
210071	DB-25 DCE female	terminal or printer (male)
210068	DB-25 DTE male	modem or multiplexer (female)
210069	DB-25 DTE female	DCE devices (male)
210072	DB-9 female	DB-9 PC (male)

Table 1. 10-wire Modular Adapters

The adapters listed above (with 10-wire modular cables as shown below) may be used to attach devices RJ-45 CP ports. If a customer supplied modular cable is used, make sure the cable is reversing (see Figure 11 below).

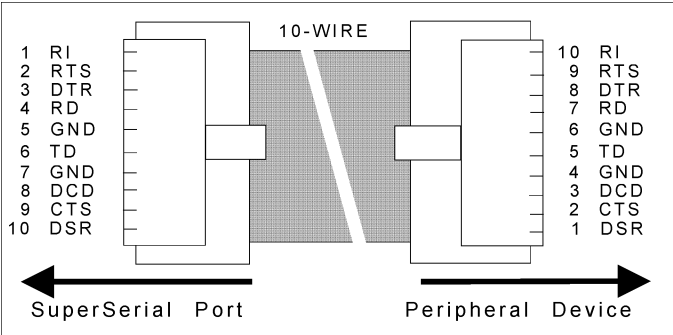


Figure 11. 10-wire RJ-45 Reversing Cable

The following modular cables are available from Equinox (use with modular adaptors from Table 1 above):

<u>P/N</u>	<u>Description</u>
690252	10' 10-wire reversing modular cable
690253	25' 10-wire reversing modular cable
690254	75' 10-wire reversing modular cable

Table 2. 10-wire Modular Cables

DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN 45014

Manufacturer's Name: Equinox Systems Inc.
Manufacturer's Address: One Equinox Way
Sunrise, Florida 33351-6709
USA

declares, that the products

Product Names: SuperSerial Technology (SST)
serial I/O products
Megaplex serial I/O products
ELS Ethernet terminal servers

Model Names: SST-2, SST-4, SST-8, SST-16,
SST-64, SST-128, CP-16, PM-8,
PM-16, MIM-1, CMX-16,
SST Modem Pool, SSM-8, SSM-12,
SSM-24, Megaplex, Megaplex CMX

ELS-8, ELS-16

Product Options: All

conform to the following Product Specifications:

Safety: EN 60950:1992, CSA C22.2 No:950, UL 1950
EMC: EN 55022 (CISPR22 A): 1987E,
FCC Part 15 Class A
EN 50082-1: 1992 - Generic Immunity
IEC 801-2: 1984, 8kV
IEC 801-3: 1984, 3V/m, 27-500MHz
IEC 801-4: 1988, 1kV Power &
0.5kV I/O Lines

Supplementary Information:

The products herewith comply with the requirements of the Low Voltage Directive, 73/23/EEC and the EMC Directive 89/336/EEC, including amendments by the CE-marking Directive 93/68/EEC.

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The equipment has been tested and found to comply with the limits for Class A digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTE: The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user's authority to operate the equipment.

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